

U.S. Application No. 10/069,973
Response dated February 16, 2005
Reply to Office Action of December 16, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-62 canceled.

63. (New) A method for the inhibition of apoptosis, comprising contacting a cell with an effective amount of a substance capable of inhibiting the activity of adenine nucleotide translocase-1 (ANT-1).

64. (New) The method of claim 63, wherein said cell is a mammalian cell.

65. (New) The method of claim 64, wherein said cell is associated with a pathogenic disorder.

66. (New) The method of claim 63, wherein the activity of ANT-1 is inhibited on the nucleic acid level.

67. (New) The method of claim 66, wherein the inhibition is effected by reducing ANT-1 gene expression.

U.S. Application No. 10/069,973
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68. (New) The method of claim 66, wherein the activity of the endogenous ANT-1 promoter is reduced.
69. (New) The method of claim 63, wherein the activity of ANT-1 is inhibited on the protein level.
70. (New) The method fo claim 69, wherein the inhibition is effected by adding ANT-1 protein antagonists.
71. (New) The method of claim 70, wherein the antagonist is cyclophilin D.
72. (New) The method of claim 63, wherein an apoptosis-inducing signal transduction pathway is inhibited, said pathway being activated by ANT-1.
73. (New) A method for the treatment of diseases associated with excessive apoptosis, comprising the step of administering to a subject in need thereof a pharmaceutically effective amount of a substance capable of inhibiting the activity of adenine nucleotide translocase (ANT-1).
74. (New) The method of claim 73, wherein the disease is a degenerative disease.

U.S. Application No. 10/069,973
Response dated February 16, 2005
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75. (New) The method of claim 74, wherein the disease is dilated cardiomyopathy.
76. (New) A method for identifying substances suitable for apoptosis inhibition comprising the step of determining the capability of a test substance to inhibit the activity of ANT-1.
77. (New) The method of claim 76, wherein the capability of a test substance to bind ANT-1 or a domain thereof is determined.
78. (New) The method of claim 76, wherein the capability of a test substance to bind the N-terminal domain of ANT-1 is determined.
79. (New) The method of claim 76, wherein the capability of a test substance to inhibit the binding of ANT-1 to natural binding partners thereof is determined.
80. (New) The method of claim 76, which is carried out as a high-throughput assay.
81. (New) The method of claim 80, comprising a parallel determination of at least 96 test compounds.
82. (New) The method of claim 76, which is carried out as a cell-based assay.

83. (New) The method of claim 81, which is carried out as an assay using ANT-1 containing cell fractions or ANT-1-containing whole cells.
84. (New) The method of claim 76, which is carried out as a molecular-based assay using an isolated protein selected from ANT-1 or a domain thereof.
85. (New) The method of claim 84, wherein a recombinant protein is used.
86. (New) The method of claim 76, wherein the determining step comprises the measurement of apoptosis induction.
87. (New) The method of claim 86, wherein the apoptosis induction is measured by a parameter selected from the group consisting of DNA fragmentation, caspase activation or characteristic alternations in cell morphology.
88. (New) A pharmaceutical composition comprising as an active agent an inhibitor of ANT-1 activity, optionally together with pharmaceutically acceptable diluents, carriers or adjuvants.

U.S. Application No. 10/069,973
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89. (New) The pharmaceutical composition of claim 88 for use in the treatment of diseases associated with excessive apoptosis.
90. (New) The composition of claim 89 for use in the treatment of human diseases.
91. (New) The composition of claim 90 for use in the treatment of dilated cardiomyopathy.
92. (New) A method for the diagnosis of an apoptotic process in a degenerative disease or a predisposition therefor comprising detecting the ANT-1 expression in a sample from tissue and/or body fluids of a subject to be tested, wherein elevated ANT-1 expression is indicative for an apoptotic process occurring in a degenerative disease or a predisposition therefor.
93. (New) The method of claim 92, wherein the degenerative disease is dilated cardiomyopathy.